

IN THE CLAIMS

Claims 1-19 (Cancelled)

20. (Currently Amended) The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface as set forth in Claim ~~19~~ 37, wherein:

said plurality of permanent raised pavement markers (RPMs) are disposed within a nested array with respect to each other prior to the serial dispensing and application of said plurality of permanent raised pavement markers (RPMs) onto the pavement surface.

21. (Original) The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface as set forth in Claim 20,

wherein:

said plurality of permanent raised pavement markers (RPMs) are disposed atop one another when said plurality of permanent raised pavement markers (RPMs) are disposed within said nested array; and

portions of said single release sheet, to which all of said adhesive means of said plurality of permanent raised pavement markers (RPMs) are adhered prior to the serial dispensing and application of said plurality of permanent raised pavement markers (RPMs) onto the pavement surface, are interposed between successive ones of said plurality of nested permanent raised pavement markers (RPMs).

22. (Original) The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface as set forth in Claim 21, wherein:

each one of said portions of said single release sheet, interposed between said successive ones of said plurality of nested permanent raised pavement markers (RPMs), defines a folded loop, set inwardly with respect to an edge

portion of each one of said adhesive means, such that when each one of said folded loops is unfolded in connection with the serial dispensing and application of said plurality of permanent raised pavement markers (RPMs) onto the pavement surface, a feather-edge bond structure, defined at a boundary region between each folded loop portion of said release sheet and each one of said adhesive means, is able to be effectively recombined with a respective one of said adhesive means so as to effectively permit said feather-edge bond structure to be completely assimilated within said adhesive means and thereby readily permit the easy separation, peeling, and stripping of said release sheet from each one of said adhesive means.

23. (Original) The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface as set forth in Claim 21, wherein:

each one of said plurality of permanent raised pavement markers (RPMs) has a predetermined lateral width dimension; and

said single release sheet has a predetermined lateral width dimension which is greater than said predetermined lateral width dimension of each one of said plurality of permanent raised pavement markers (RPMs) such that side edge portions of said single release sheet extend beyond side edge portions of each one of said plurality of permanent raised pavement markers (RPMs).

24. (Currently Amended) The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface as set forth in Claim ~~19~~ 37, wherein:

said means for causing said leading one of said plurality of permanent raised pavement markers (RPMs), disposed within said collated array of permanent raised pavement markers (RPMs), to be separated from said plurality of permanent raised pavement markers (RPMs) disposed within said collated array of pavement markers so as to be capable of being applied to the pavement surface comprises a stripper plate around which said single release sheet is routed so as to strip said single release sheet from said leading one of

said plurality of permanent raised pavement markers (RPMs) in order to expose said adhesive means disposed upon said bottom surface portion of said leading one of said plurality of permanent raised pavement markers (RPMs) such that said leading one of said plurality of pavement markers can be fixedly applied to the pavement surface.

25. (Original) The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface as set forth in Claim 24, further comprising:

an indexable roller, around which said single release sheet is routed, for indexably moving said single release sheet predetermined distances so as to serially dispense individual ones of said permanent raised pavement markers (RPMs) at predetermined times such that said permanent raised pavement markers (RPMs) will be fixedly applied onto the pavement surface at positions which are spaced predetermined distances apart.

26. (Original) The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface as set forth in Claim 25, further comprising:

a drive motor operatively connected to said indexable roller; and

a program logic controller (PLC) operatively connected to said drive motor so as to energize said drive motor at predetermined times so as to cause said drive motor to operate said indexable roller at predetermined times in order to indexably advance said single release sheet with respect to said stripper plate.

27. (Original) The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface as set forth in Claim 24, further comprising:

an applicator wheel for rollably engaging said leading one of said plurality of permanent raised pavement markers (RPMs), from which said single release sheet has been stripped, so as to fixedly apply said leading one of said

plurality of permanent raised pavement markers (RPMs) to the pavement surface.

Claims 28-36 (Cancelled)

37. (New) Apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface, comprising:

a plurality of permanent raised pavement markers (RPMs), wherein each one of said plurality of permanent raised pavement markers (RPMs) has an upper surface portion and a bottom surface portion;

adhesive means, adapted to be fixedly mounted upon said bottom surface portion of each one of said plurality of permanent raised pavement markers (RPMs), for permitting each one of said bottom surface portions of said plurality of permanent raised pavement markers (RPMs) to be fixedly adhered to a pavement surface as a result of said plurality of permanent raised pavement markers (RPMs) being serially dis-

pensed and said bottom surface portions of said plurality of permanent raised pavement markers (RPMs) being respectively applied directly to the pavement surface at predeterminedly spaced positions located along the pavement surface;

a single release sheet, to which all of said adhesive means of said plurality of permanent raised pavement markers (RPMs) are separably adhered prior to the serial dispensing and application of said plurality of permanent raised pavement markers (RPMs) onto the pavement surface, so as to effectively define, along with said plurality of permanent raised pavement markers (RPMs), said collated array of said plurality of pavement markers to be dispensed and applied onto the pavement surface; and

means for causing a leading one of said plurality of permanent raised pavement markers (RPMs), disposed within said collated array of permanent raised pavement markers (RPMs), to be separated from said plurality of permanent raised pavement markers (RPMs) disposed within said collated array of permanent raised pavement markers (RPMs) and for depositing said bottom surface portion of said leading one of said plurality of permanent raised pavement markers (RPMs), upon which said adhesive means is disposed, directly onto the pavement surface so as to facilitate the adhesive bonding of



said leading one of said plurality of permanent raised pavement markers (RPMs) to the pavement surface.

38. (New) The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface as set forth in Claim 21, wherein:

each one of said portions of said single release sheet, interposed between said successive ones of said plurality of nested permanent raised pavement markers (RPMs), comprises a folded loop which is routed beneath said bottom surface portion of one of said plurality of nested permanent raised pavement markers (RPMs) and over said upper surface portion of a successive one of said plurality of nested permanent raised pavement markers (RPMs).

39. (New) Apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface, comprising:

a plurality of permanent raised pavement markers

(RPMs), wherein each one of said plurality of permanent raised pavement markers (RPMs) has an upper surface portion and a bottom surface portion;

adhesive means, fixedly mounted upon said bottom surface portion of each one of said plurality of permanent raised pavement markers (RPMs), for permitting each one of said bottom surface portions of said plurality of permanent raised pavement markers (RPMs) to be fixedly adhered to a pavement surface as a result of said plurality of permanent raised pavement markers (RPMs) being serially dispensed and said bottom surface portions of said plurality of permanent raised pavement markers (RPMs) being respectively applied directly to the pavement surface at predeterminedly spaced positions located along the pavement surface;

a single release sheet, to which all of said adhesive means of said plurality of permanent raised pavement markers (RPMs) are separably adhered prior to the serial dispensing and application of said plurality of permanent raised pavement markers (RPMs) onto the pavement surface, so as to effectively define, along with said plurality of permanent raised pavement markers (RPMs), said collated array of said plurality of pavement markers to be dispensed and applied onto the pavement surface; and

means for causing a leading one of said plurality of permanent raised pavement markers (RPMs), disposed within said collated array of permanent raised pavement markers (RPMs), to be separated from said plurality of permanent raised pavement markers (RPMs) disposed within said collated array of permanent raised pavement markers (RPMs) and for depositing said bottom surface portion of said leading one of said plurality of permanent raised pavement markers (RPMs), upon which said adhesive means is disposed, directly onto the pavement surface so as to facilitate the adhesive bonding of said leading one of said plurality of permanent raised pavement markers (RPMs) to the pavement surface.

40. (New) The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface as set forth in Claim 39, wherein:

said plurality of permanent raised pavement markers (RPMs) are disposed within a nested array with respect to each other prior to the serial dispensing and application of said plurality of permanent raised pavement markers (RPMs) onto the pavement surface.

41. (New) The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface as set forth in Claim 40, wherein:

said plurality of permanent raised pavement markers (RPMs) are disposed atop one another when said plurality of permanent raised pavement markers (RPMs) are disposed within said nested array; and

portions of said single release sheet, to which all of said adhesive means of said plurality of permanent raised pavement markers (RPMs) are adhered prior to the serial dispensing and application of said plurality of permanent raised pavement markers (RPMs) onto the pavement surface, are interposed between successive ones of said plurality of nested permanent raised pavement markers (RPMs).

42. (New) The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface as set forth in Claim 41, wherein:

each one of said portions of said single release sheet, interposed between said successive ones of said plurality of nested permanent raised pavement markers (RPMs),

defines a folded loop, set inwardly with respect to an edge portion of each one of said adhesive means, such that when each one of said folded loops is unfolded in connection with the serial dispensing and application of said plurality of permanent raised pavement markers (RPMs) onto the pavement surface, a feather-edge bond structure, defined at a boundary region between each folded loop portion of said release sheet and each one of said adhesive means, is able to be effectively recombined with a respective one of said adhesive means so as to effectively permit said feather-edge bond structure to be completely assimilated within said adhesive means and thereby readily permit the easy separation, peeling, and stripping of said release sheet from each one of said adhesive means.

43. (New) The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface as set forth in Claim 41, wherein:

each one of said plurality of permanent raised pavement markers (RPMs) has a predetermined lateral width dimension; and

said single release sheet has a predetermined lateral width dimension which is greater than said predetermined lateral width dimension of each one of said plurality of permanent raised pavement markers (RPMs) such that side edge portions of said single release sheet extend beyond side edge portions of each one of said plurality of permanent raised pavement markers (RPMs).

44. (New) The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface as set forth in Claim 41, wherein:

each one of said portions of said single release sheet, interposed between said successive ones of said plurality of nested permanent raised pavement markers (RPMs), comprises a folded loop which is routed beneath said bottom surface portion of one of said plurality of nested permanent raised pavement markers (RPMs) and over said upper surface portion of a successive one of said plurality of nested permanent raised pavement markers (RPMs).

45. (New) The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface as set forth in Claim 39, wherein:

said means for causing said leading one of said plurality of permanent raised pavement markers (RPMs), disposed within said collated array of permanent raised pavement markers (RPMs), to be separated from said plurality of permanent raised pavement markers (RPMs) disposed within said collated array of pavement markers so as to be capable of being applied to the pavement surface comprises a stripper plate around which said single release sheet is routed so as to strip said single release sheet from said leading one of said plurality of permanent raised pavement markers (RPMs) in order to expose said adhesive means disposed upon said bottom surface portion of said leading one of said plurality of permanent raised pavement markers (RPMs) such that said leading one of said plurality of pavement markers can be fixedly applied to the pavement surface.

46. (New) The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs)

onto a pavement surface as set forth in Claim 45, further comprising:

an indexable roller, around which said single release sheet is routed, for indexably moving said single release sheet predetermined distances so as to serially dispense individual ones of said permanent raised pavement markers (RPMs) at predetermined times such that said permanent raised pavement markers (RPMs) will be fixedly applied onto the pavement surface at positions which are spaced predetermined distances apart.

47. (New) The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface as set forth in Claim 46, further comprising:

a drive motor operatively connected to said indexable roller; and

a program logic controller (PLC) operatively connected to said drive motor so as to energize said drive motor at predetermined times so as to cause said drive motor to operate said indexable roller at predetermined times in ord-



er to indexably advance said single release sheet with respect to said stripper plate.

48. (New) The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface as set forth in Claim 45, further comprising:

an applicator wheel for rollably engaging said leading one of said plurality of permanent raised pavement markers (RPMs), from which said single release sheet has been stripped, so as to fixedly apply said leading one of said plurality of permanent raised pavement markers (RPMs) to the pavement surface.

49. (New) Apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface, comprising:

a plurality of permanent raised pavement markers (RPMs), wherein each one of said plurality of permanent rais-

ed pavement markers (RPMs) has an upper surface portion and a bottom surface portion;

a single release sheet, to which all of said plurality of permanent raised pavement markers (RPMs) are separably affixed, so as to effectively define, along with said plurality of permanent raised pavement markers (RPMs), said collated array of said plurality of permanent raised pavement markers (RPMs) which are to be serially dispensed and applied onto a pavement surface;

adhesive means, separably mounted upon said single release sheet at predeterminedly spaced positions defined along said single release sheet and adapted to be adhesively bonded to said bottom surface portion of each one of said plurality of permanent raised pavement markers (RPMs) prior to the serial dispensing and application of said plurality of permanent raised pavement markers (RPMs) onto the pavement surface, for permitting each one of said bottom surface portions of said plurality of permanent raised pavement markers (RPMs) to be fixedly adhered to a pavement surface as a result of said plurality of permanent raised pavement markers (RPMs) being serially dispensed and said bottom surface portions of said plurality of permanent raised pavement markers (RPMs) being respectively applied directly to the pavement

surface at predeterminedly spaced positions located along the pavement surface; and

means for causing a leading one of said plurality of permanent raised pavement markers (RPMs), disposed within said collated array of permanent raised pavement markers (RPMs), to be separated from said plurality of permanent raised pavement markers (RPMs) disposed within said collated array of permanent raised pavement markers (RPMs) and for depositing said bottom surface portion of said leading one of said plurality of permanent raised pavement markers (RPMs), upon which said adhesive means is disposed, directly onto the pavement surface so as to facilitate the adhesive bonding of said leading one of said plurality of permanent raised pavement markers (RPMs) to the pavement surface.

50. (New) The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface as set forth in Claim 49, wherein:

said plurality of permanent raised pavement markers (RPMs) are disposed within a nested array with respect to each other prior to the serial dispensing and application of

said plurality of permanent raised pavement markers (RPMs) onto the pavement surface.

51. (New) The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface as set forth in Claim 50, wherein:

said plurality of permanent raised pavement markers (RPMs) are disposed atop one another when said plurality of permanent raised pavement markers (RPMs) are disposed within said nested array; and

portions of said single release sheet, to which all of said adhesive means of said plurality of permanent raised pavement markers (RPMs) are adhered prior to the serial dispensing and application of said plurality of permanent raised pavement markers (RPMs) onto the pavement surface, are interposed between successive ones of said plurality of nested permanent raised pavement markers (RPMs).

52. (New) The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface as set forth in Claim 51, wherein:

each one of said portions of said single release sheet, interposed between said successive ones of said plurality of nested permanent raised pavement markers (RPMs), defines a folded loop, set inwardly with respect to an edge portion of each one of said adhesive means, such that when each one of said folded loops is unfolded in connection with the serial dispensing and application of said plurality of permanent raised pavement markers (RPMs) onto the pavement surface, a feather-edge bond structure, defined at a boundary region between each folded loop portion of said release sheet and each one of said adhesive means, is able to be effectively recombined with a respective one of said adhesive means so as to effectively permit said feather-edge bond structure to be completely assimilated within said adhesive means and thereby readily permit the easy separation, peeling, and stripping of said release sheet from each one of said adhesive means.

53. (New) The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface as set forth in Claim 51, wherein:

each one of said plurality of permanent raised pavement markers (RPMs) has a predetermined lateral width dimension; and

said single release sheet has a predetermined lateral width dimension which is greater than said predetermined lateral width dimension of each one of said plurality of permanent raised pavement markers (RPMs) such that side edge portions of said single release sheet extend beyond side edge portions of each one of said plurality of permanent raised pavement markers (RPMs).

54. (New) The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface as set forth in Claim 51, wherein:

each one of said portions of said single release sheet, interposed between said successive ones of said plurality of nested permanent raised pavement markers (RPMs), comprises a folded loop which is routed beneath said bottom

surface portion of one of said plurality of nested permanent raised pavement markers (RPMs) and over said upper surface portion of a successive one of said plurality of nested permanent raised pavement markers (RPMs).

55. (New). The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface as set forth in Claim 49, wherein:

said means for causing said leading one of said plurality of permanent raised pavement markers (RPMs), disposed within said collated array of permanent raised pavement markers (RPMs), to be separated from said plurality of permanent raised pavement markers (RPMs) disposed within said collated array of pavement markers so as to be capable of being applied to the pavement surface comprises a stripper plate around which said single release sheet is routed so as to strip said single release sheet from said leading one of said plurality of permanent raised pavement markers (RPMs) in order to expose said adhesive means disposed upon said bottom surface portion of said leading one of said plurality of permanent raised pavement markers (RPMs) such that said lead-

ing one of said plurality of pavement markers can be fixedly applied to the pavement surface.

56. (New) The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface as set forth in Claim 55, further comprising:

an indexable roller, around which said single release sheet is routed, for indexably moving said single release sheet predetermined distances so as to serially dispense individual ones of said permanent raised pavement markers (RPMs) at predetermined times such that said permanent raised pavement markers (RPMs) will be fixedly applied onto the pavement surface at positions which are spaced predetermined distances apart.

57. (New) The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface as set forth in Claim 56, further



comprising:

a drive motor operatively connected to said indexable roller; and

a program logic controller (PLC) operatively connected to said drive motor so as to energize said drive motor at predetermined times so as to cause said drive motor to operate said indexable roller at predetermined times in order to indexably advance said single release sheet with respect to said stripper plate.

58. (New) The apparatus for serially dispensing and applying a collated array of permanent raised pavement markers (RPMs) onto a pavement surface as set forth in Claim 55, further comprising:

an applicator wheel for rollably engaging said leading one of said plurality of permanent raised pavement markers (RPMs), from which said single release sheet has been stripped, so as to fixedly apply said leading one of said plurality of permanent raised pavement markers (RPMs) to the pavement surface.